Remarks

Applicants have added claim 24 which was accidentally omitted from the previous claim amendments in line with the Examiner's objection under 35 USC 112. Claim 4 is dependent on claim 24 which itself is reinstated from original claim 3. No new issues are raised by this amendment. For proper numbering consistency, claim 14 is identified as "cancelled", though it has not been present.

The applicant notes that the Examiner's previous rejections of the claims based on Achilleoudis (US 6,052,386) as the primary reference have been overcome. The Examiner now rejects claims 1, 7, 12, 18, 21 and 22 under 35 USC §103(a) over Westberg (US 6,041,054) in view of Saussy (US 5,936,963), and for various remaining claims in further view of Deng (US 6,243,394), Czerwiec (US 6,314,102) and Lamport (US 5,138,615). Applicant disagrees for the following reasons:-

In paragraph 5 of the detailed action, the Examiner cites Westberg as the primary reference. Applicant submits that Westberg is an inappropriate reference as a starting point for the rejection of claims 1, 7, 12, 18, 21 and 22 under 35 USC §103(a). As admitted by the Examiner, Westberg does not relate to a digital subscriber line. The Examiner will appreciate that the present invention is specifically directed to the provision of engineering operation channels over a digital subscriber line. One skilled in art would clearly not consult as a starting point a reference which has nothing to do with digital subscriber lines.

Moreover, applicant submits that the features of Westberg cited by the Examiner in paragraph 5 simply do not correspond to the claimed features of the present invention on any interpretation. Applicant admits that Westberg teaches the use of ATM AAL2 minicells for transmission efficiency in point to point transportation of IP packets. However, this has nothing to do with the provision of an engineering operations channel over a digital subscriber line. The Examiner argues that the CID

field of an AAL2 minicell header equates to the engineering operation channel of the present invention. However, one skilled in the art would understand the term "engineering operations channel" in the present invention to mean a channel enabling a carrier to perform engineering operations (i.e. monitoring, management and control) of a subscriber terminal or link. The CID field of an AAL2 minicell header is a circuit identity which enables multiple AAL2 minicells to be associated together and to be recognized as forming part of the same ATM circuit. One skilled in the art would recognize that the CID field and an engineering operations channel are entirely separate features.

Furthermore, the Examiner seems to equate the compression algorithm at the sending point in Westberg with the first management system of the claimed invention and the decompression algorithm at the receiving point with the second management system. Applicant submits that this is an unreasonable interpretation of the features of first and second management systems in the claimed invention. One skilled in the art would readily appreciate that, in the context of the provision of an engineering operations channel across a digital subscriber line, the claimed first and second management systems are for enabling a carrier to monitor, manage and control the subscriber terminal and link (for example as set out in the description at page 2, lines 13 to 16). Westberg teaches no such functionality. The passages cited by the Examiner in Westberg teach a more efficient packet format in which certain data fields in the AAL2 minicell header are used to map other fields in the IP or PPP headers. In Westberg, this achieves a more efficient utilization of bandwidth. One skilled in the art would readily appreciate that this has absolutely nothing to do with the claimed first and second management systems of the present invention.

In short, one skilled in the art would consider Westberg to be a completely inappropriate reference and would not be motivated to consult it in the first place or at all.

The Examiner further combines Westberg with Saussy. However, applicant submits that even if one skilled in art were to attempt to combine these references, which applicant denies one skilled in the art would ever do, he would still not arrive at the claimed invention. Combining Westberg and Saussy, one skilled in the art would arrive at an efficient mechanism for transport of IP packets using AAL2 minicells and, in preferred embodiments, mapping of IP and PPP fields to the CID field of AAL2 minicells over an ADSL point to point link. Thus, one skilled in the art would arrive at a more efficient mechanism for transport of user data over the ADSL link. This has nothing to do with the present invention which is concerned with the provision of an engineering operations channel (i.e. a carrier monitoring, management and control channel and not a bearer channel for transporting user data).

In view of the above, the applicant submits that the Examiner's further rejection of dependent claims is moot. However, for the avoidance of doubt, applicant makes no admissions in respect of the Examiner's rejection of the remaining claims and obviously does not agree with that rejection.

Applicant believes that he has clearly shown that the present invention is both novel and non-obvious over the prior art references cited by the Examiner and that the present application is in order for allowance. Such action is therefore solicited.

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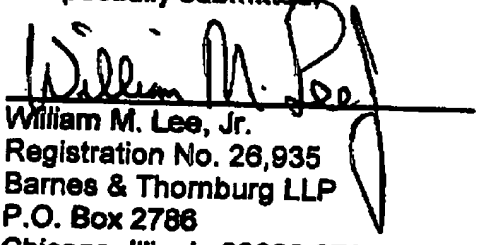
Respectfully submitted,



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